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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/770,400	01/29/2001	Takayoshi Sasaki	202337US0	6177

22850 7590 09/05/2003

OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER

AHMED, SHEEBA

ART UNIT	PAPER NUMBER
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1773

DATE MAILED: 09/05/2003

9

Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action

Application No.

09/770,400

Applicant(s)

SASAKI ET AL.

Examiner

Sheeba Ahmed

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--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 15 August 2003 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check either a) or b)]

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
- b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on _____. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☒ The proposed amendment(s) will not be entered because:
- (a) ☒ they raise new issues that would require further consideration and/or search (see NOTE below);
 - (b) ☐ they raise the issue of new matter (see Note below);
 - (c) ☒ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
 - (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____.

3. ☐ Applicant's reply has overcome the following rejection(s): _____.
4. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☒ The a) ☐ affidavit, b) ☐ exhibit, or c) ☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: See attached sheet.
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☒ For purposes of Appeal, the proposed amendment(s) a) ☒ will not be entered or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: None.

Claim(s) objected to: _____.

Claim(s) rejected: 1, 2-4 and 6-8.

Claim(s) withdrawn from consideration: 5 and 9-16.

8. ☐ The proposed drawing correction filed on _____ is a) ☐ approved or b) ☐ disapproved by the Examiner.
9. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____.
10. ☒ Other: See attached sheet.

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1. The Amendment After Final submitted on August 15, 2003 (Paper No. 8) has not been entered in the above-identified application because such an amendment does not place the application in better form for appeal by materially reducing or simplifying the issues for appeal and newly presented limitations that the "substrate is selected from a quartz glass plate, Si wafer, mica plate, graphite plate and alumina plate", that "the layered titanium oxide is selected from the group consisting of lepidocrocite titanate, trititanate, tetratitanate and pentatitanate", and that "the polymer layers comprise one or more polymers selected from the group consisting of polydimethyldiallyl ammonium chloride, polyethyleneimine and polyallylamine hydrochloride" in claims 17-20 raise new issues that would require further search and consideration.

Applicant's arguments filed on August 15, 2003 (Paper No. 8) have been fully considered but they are not persuasive. Applicants traverse the rejection under 35 U.S.C. 103(a) as being unpatentable over Oishi et al. (US 5,935,717) and submit that there is no suggestion of lamina particles or lamina particles obtained by exfoliating crystals of a layered titanium oxide, there is no suggestion of an organic film having the claimed polymer layer thickness, the inorganic layer thickness relied upon in the Office Action has nothing to do with lamina particles and that there is no relationship between the titanium oxide particle size and layer thickness.

With regards to the argument that (1) there is no suggestion of lamina particles or lamina particles obtained by exfoliating crystals of a layered titanium oxide, the Examiner has taken the position that the inorganic thin film is the lamina particle layer and that the organic film is the polymer layer and dispersed particles of titanium oxide

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are used to form the inorganic thin film. Furthermore, the phrase "obtained by exfoliating crystals of a layered titanium oxide" is treated as a process limitation within a product claim.

Furthermore, with regards to the argument that there is no suggestion of an organic film having the claimed polymer layer thickness, the inorganic layer thickness relied upon in the Office Action has nothing to do with lamina particles and that there is no relationship between the titanium oxide particle size and layer thickness. The Examiner would like to point out that the titanium oxide particles have a particle size of 500 angstroms or less which is layered with an organic film made of polyethylene terephthalate and Oishi et al. specifically teach titanium oxide particles having a particle size of 500 angstroms or less and thus meeting the range of sub-nm to nm and meeting the limitations of claims 6 and 7.

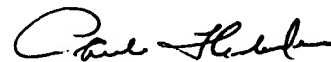
Hence, the rejection of claims 1, 2- 4, and 6-8 is maintained.

Conclusion

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sheeba Ahmed whose telephone number is (703)305-0594. The examiner can normally be reached on Mondays and Thursdays from 8am to 6pm.



Sheeba Ahmed
September 2, 2003



Paul Thibodeau
Supervisory Patent Examiner
Technology Center 1700